REMARKS

This Amendment, submitted in response to the Office Action dated January 14, 2004, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claims 1-18 and 27-39 are pending in the present application. Claims 19-26 have been cancelled. Claims 1-15 and 34 have been allowed. Claims 37-39 have been objected to but would be allowed if rewritten in independent form. Claims 16, 18, 35-36 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Ito et al. (U.S. P. 6,301,383). Claims 17, 28, 31 and 33 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Hoshino (U.S.P. 5,317,426). Claims 27, 29-30, 32 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Ito in view of Hoshino (U.S.P. 5,317,426). Applicant submits the following in traversal of the rejections.

Rejection of claims 16, 18, 35-36 under § 102(e) as being anticipated by Ito

Claim 16

In response to Applicant's argument that Ito does not teach correcting an edge shape, the Examiner states that Ito discloses gamut mapping which teaches correcting the edge shape of a monitor gamut and that L*a*b* to YMC transformation teaches the compression or extension of a color reproducing space.

Gamut mapping involves mapping out the entire area of a color reproducing space. See Ito Field of the Invention. As previously indicated, gamut mapping is part of compression or extension of a color reproducing space. Gamut mapping is not correcting an edge shape of a color gamut of a second image input/output device in accordance with an edge shape of a color

gamut of a first input/output device **before** the color reproducing space is compressed or extended.

Unless the locations of the color reproducing space of a first and a second input/output device were determined, the color reproducing space of the first or second input/output device could not be compressed or extended. Merely mapping the area of a color reproducing space is not *correcting* an edge shape.

The Examiner's reliance on Cols. 5-6 of Ito appear to be misplaced. The cited portion relates to obtaining a forward conversion table between a device depending space (CMY) and device independent space (L*a*b*). Since CMY typically relates to a printer rather than a monitor, the Examiner's position that the disclosure relates to "monitor gamut" appears to be in error. In addition, claim 16 describes correcting of a second device in accordance with a first device. By contrast, L*a*b* is not device dependent. The Examiner rejection ignores the relation of input and output devices as claimed. For the above reasons, claim 16 and its dependent claims should be deemed patentable.

Claim 18

In rejecting claim 18, on page 2 of the Office Action, the Examiner states that the same arguments applied to claim 16 are applicable to claim 18. However, claim 18 describes elements different from claim 16.

Claim 18 describes that when a color reproducing space is compressed or extended providing an *adjusting parameter* of at least one of a hue, a chroma range and a lightness region for the purpose of adjusting the floor reproducing space and then *adjusting* at least one of a

corresponding hue, chroma range, and lightness region of the color reproducing space to transform into by compression or extension.

The Examiner cites col. 6, lines 1-65 for teaching the adjusting parameter of claim 18. However the respective column and lines cited by the Examiner describes the generation of a lookup table. Col. 5, lines 34-36. The lookup table is generated using the values in a forward direction table containing the values of signals L*a*b* which correspond to signals CMY. Col. 5, lines 30-33. The lookup table is subsequently used for gamut mapping. Col. 5, lines 2-8 (...the lookup table used when signals L*a*b* are converted to signals CMY is made by utilizing gamut mapping...").

There is no indication that when a color reproducing space is compressed or extended, of providing an adjusting parameter and then *adjusting* at least one of a corresponding hue, chroma range, and lightness region of the color reproducing space to transform into by compression or extension. Therefore, claim 18 and its dependent claims should be deemed patentable.

Claims 35 and 36

The Examiner cites Fig. 7, col. 2, line 44-col. 3, line 36 and col. 5, lines 51-col. 6, line 65 for teaching the elements of claims 35 and 36. Fig. 7 illustrates the generation of a lookup table. Col. 2, line 44-col. 3, line 36 describes that an object of Ito is gamut mapping by minimizing a value of a color-difference formula and performing gamut mapping with respect to color signals outside the gamut of the output system.

There is no indication that the edge shape of the color gamut of the second image input/output device is corrected to correct offset of primary colors of the first image input/output device in relation to primary colors in the second image input/output device (claim 35) or that the

edge shape of a color gamut of the second image input/output device is corrected by smoothing the edge shape with a curve such that the edge form of the color gamut of the second input/output device has a bend (claim 36). Therefore, claims 35 and 36 should be deemed patentable.

Rejection of claims 17, 28, 31 and 33 under § 102(b) as being anticipated by Hoshino

Claim 17

In response to Applicant's argument that Hoshino does not teach correcting an edge shape before the color reproducing space is compressed or extended, the Examiner states that Hoshino shows that an edge shape of a monitor gamut is corrected in the L*u*v* space by gamut matching and then corrected color transformed into the reproducing color space.

As indicated above with respect to Ito, gamut mapping involves mapping out the entire area of a color reproducing space and is part of compression or extension of a color reproducing space. Gamut mapping is not correcting an edge shape of a color gamut of a second image input/output device in accordance with an edge shape of a color gamut of a first input/output device **before** the color reproducing space is compressed or extended.

Similarly, luv conversion typically relates to device-independent manipulation and thus such manipulation does not take into account first and second devices as claimed. Therefore, claim 17 and its dependent claims should be deemed patentable.

Claim 28

The Examiner states that Hoshino discloses a central color reproducing space where the first image input/output device and the second image input/output device overlap and a peripheral color reproducing space where the first image input/output device and the second

image input/output device do not overlap, are both compressed or extended, citing Figs. 15 and 27, and col. 14, line 35+ and col. 2, equation 1 describing compression.

Fig. 27 illustrates the color reproduction gamut of a color CRT and a hard copy. See Col. 2, lines 10-12. Fig. 15 illustrates the movement of a target value on a straight line. Equation 1 expresses a straight line. There is no indication of compression or extension being performed in both a central color reproducing space and a peripheral color reproducing space, in Figs. 15 and 27.

Furthermore, Hoshino states that in the chroma direction, no value is corrected at the overlapped center portion between the color reproducing gamut of the input side and that of the output side. See col. 3, lines 54-57. Therefore, Hoshino does not teach that both the central color reproducing space and the peripheral color reproducing space are both compressed or extended. Thus, claim 28 should be deemed patentable. Since claims 27 and 29 describe similar elements, they are patentable for the same reasons.

Claim 31

The Examiner states that Hoshino teaches that each color representation of a color reproducing space is compressed or extended (claim 31), citing Figs. 15 and 27, col. 14, line 35+ and col. 2. However, since the chroma of the overlapped center portion of Hoshino is not compressed or extended, each color representation of a color reproducing space is not compressed or extended.

Therefore, claim 31 should be deemed patentable.

Rejection of claims 27, 29-30, 32 under § 103(a) as being unpatentable over Ito in view of Hoshino

Claims 27 and 29

The Examiner states that Ito does not explicitly disclose compressing or expanding the central portion of the color reproducing space, and cites Hoshino to cure the deficiency. The Examiner states that Hoshino claim 28 teaches compressing or extending a central portion of the color reproducing space. However, Hoshino does not have a claim 28. Furthermore, none of Hoshino's four claims appear to disclose the aspects of claims 27 and 29. Therefore, the combination of Ito with Hoshino does not teach the elements of claims 27 and 29 and claims 27 and 29 should be deemed patentable. Claims 27 and 29 should further be deemed patentable for the reasons set forth above with respect to claim 28.

Applicant further submits that the Examiner has not provided an adequate basis for combining the references. Ito attempts to minimize a color difference perception which includes lightness, chroma and hue in combination. Col. 3, lines 15-16. Given the sensitivity of this art, the applicability of Hoshino, which seeks to preserve lightness information would appear to be contradictory to Ito. Therefore, Hoshino and Ito actually teach away from their combination with each other.

Claims 30 and 32

Since claims 30 and 32 describe elements similar to claim 31, they should be deemed patentable for the same reasons.

Applicant has added claims 40-43 to provide a more varied scope of protection.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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